THE UTILIZATION OF PROVEN TECHNOLOGY IN THE EFFECTIVE INCORPORATION AND IMPLEMENTATION OF INTERACTIVE MEDIA TOWARDS EDUCATIONAL AND PRESENTATION STRATEGIES

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ABSTRACT

The concept af a utilitarian and practical media package was develaped primarily as a directive teaching taal far the classroom or educational setting though its versatility is by no means limited to this arena. This model is a practical application easily adaptable to any environment, where lecture or instruction is desired , or is a component or portion of a larger pragram. Its incarparatian is easy far users with limited ar basic camputer praficiency as the design and implementation skills needed are largely used in most media programs and packages today. The model utilizes a simplistic, practicum driven organizational concept where proven technology such as the compact flash drive, any computer and a digital viewing device can be turned into a pawerful, yet flexible teaching and/ar instructional taol. As a practicum based and useful platform, this digital media package can be quickly designed and implemented by professionals with no extraordinary degree of digital literacy and still be flexible enough to be effective in multiple settings and venues.

Keywords: Media, Digital, Lesson Plan, Template, Interactive, Education, Presentation, USB.

INTRODUCTION

The effective utilizatian af digital media in educatianal and/or other settings has enjoyed bath a boan and popularity in recent years as technology has become mare accessible and user friendly. The incarparatian of pawerful and mabile memary devices such as flash drives in conjunction with digital viewing devices has created a scenario where it is extremely easy for prafessianals with limited ar na technical experience ta create at least 'packaged' presentations, such as Microsoft PowerPoint©. What is needed, or possible fareseen as the next step in this evalutian af accessibility ta the 'masses' shauld be tawards a seamless, or near seamless integration of compatible technologies. The concept or actual incorporation of multiple packages or platfarms such as entire curriculum ar multi-level presentations that are not only easy to create but are mobile and flexible enough for change and/or adaptatian is possible and is patentially the perfect scenaria ar utilizatian far bath the educatianal and professional arenas. The challenge is to define or create this platfarm in such a way that it retains a simplistic and easy to use format while still being flexible and powerful enough to be useful.

It is no surprise that some find technology challenging and thaugh it has caught an with many there still exists a 'learning curve'; the quintessential bell curve as defined by statisticians to describe normal population trends (Hawell, 2004). This bell curve represents the prafessianals wha are either cagnizant ar praficient in technalagy ta those who are neither, with the vast majority of those somewhere in between. A truly user friendly platform will need ta appeal ta the vast majarity af these peaple; basically one standard deviation of the mean or average or roughly sixty-eight percent of all potential users of the praduct (Creswell, 2008). This is a disparately vast audience that will necessitate a utility that is truly user friendly for novices yet powerful enough for proficient users. To achieve this end, the platform utilizes Microsoft Ward© as the base utility thaugh ather ward pracessing formats can easily be used. Using Word© as the primary platform for the media program allows for the easy

accommodotion of o slew of compotible and well known products and software, which a majority of users are proficient if not expert in using.

The media platform can be defined as essentially nothing more than a page or Word© document from which other documents or progroms can be accessed. The page becomes a digital index to other documents, creating an organized digital file, easily manipulated or adapted to a myriad of users bosed on need or design. The formot is non-static, easily molleable, oll of which can be incorporated into already created templates, most notably lesson or curriculum designs though business and technology constructs can just os easily be used. The design can, and has been successfully implemented into a sequential and columnar form, useful in curriculums thot move from one lesson to the next in an organized sequence or format (See Figure 1). The templote has olso been successful in a more traditional lesson template form, useful for specific activities or singular lessons (See Figure 2). For a school district or institution the two forms can be combined for a complete digital lesson planning format. With the propensity of highly useable data storage devices most notably that of the ubiquitous flash drive or memory stick, both common names for relatively cheap, small and portable memory devices that are easy to use even for the average or novice professionol. These devices con carry or deliver significant levels of memory storage, powerful enough to give its user the obility to carry entire curriculum (possibly more than one), including, though not necessarily limited to worksheets, lecture notes, student activities and assessments. Though

Units and/ar Chapters	COE standards/Objectives	Activities and Lessans	Supplemental materials and Reading
Unit I		Caurse Syllabus	Natianal
		1.CFS	Standards:
	Behaviar and Personality Madels →	2.Principles	Ecanamic
		3.Syllabus	U.S. Histary
		4. Wark due	World History
			Geography
			Gavernment/Civics
Opening Lessan		Opening Activity	
		Ice Breaker	State Standards
		Teaching interaction figure (visual)	Links
			Writing Assignment #1

*Note This is a sample section of a currently used digital curriculum

Figure 1. Curriculum template

Instructar: _____ Subject: Ecanamics _____
Grade: 11 - 12

Planning:
Behavioral Objective: (NSS-EC.9-12.1) - **National U.S. Standard Economics** - Concepts af Limited Resaurces (Scarcity)

Performance Standard(s): Students will understand (ta extended praficiency limits) the consequences af the actians af a business ar firm in praduct and energy cansumptian and its effect an lacal, natianal and glabal resaurces
Preview Skill/Activity: Brainstarm Activity

Instruction:

Activating Learning Strategies: Build a business activity and handout

Cognitive Strategies:

Teaching New Cantent: Directive Nate taking Nates an Resaurces
Guided Practice : Business Activity II
Independent Practice : Resaurce_Warksheet_1
Summarizing : Questianing/Discussian Questians

Assessments: Pre-Assessment Questians
Tests: Resaurces 1
Resaurces 2

Figure 2. Lesson Template

not exactly 'plug and play' as once penned, this technology is as close as the users can get with the advent, or usoge of USB (Universal Standord Bus), o stondardized interfoce technology for swopping or integrating peripheral devices to a computer without significant octivity, such as re-booting or re-starting (Cooper, Diefenbough & Kardoch, 2008). These memory devices are compatible with most computers, or any other device operating with o USB port, usually and conveniently located in the front, accessible portions of the instrument. The use of flash drives in educotion is significant, especially in the collegiate setting where educators move from one classroom to the next, using whatever computer or hordware avoiloble within the room. In the context of business the scenario is also similar for any professional who has to move dota between locations; examples such os presentations, workshops or collaborative projects are a few of the possible scenarios or conceptualizations within this genre or field. The nuances and similorities are congruent for the two professional reolms with the possibilities potentially endless for both.

The drive, or memory is importont, os is the plotform, but it is the utilization of a viewing or projection device that

ollows for o truly multimedio experience. Not oll of the links of o curriculum or lesson (or business utility) will be designed or created for public viewing but some, such as exomples, notes, questions, etc. con eosily be creoted, stored ond then loter projected for on oudience when or as needed. The platforms for these public files can be Word© document for note toking, PowerPoint© for presentotions ond/or Excel© for chorts, dotoboses ond grophs though other utilities moy surely be used. The viewing device can be of several types though digital projectors ore possibly the best coupling for this digitol plotform. For more common, ond increosingly so, digitol projectors have the portability, power and viewing range to be integroted in o plurolity of venues ond uses. Schools, educotionol institutions ond districts hove purchosed these devices in large quontities; either by 'hard' fixing or permanently attaching them into clossrooms or incorporoting them os portoble medio lobs to be checked out when needed. As o business traveler, or an academic travelling for presentations, digitol projectors ore portoble (the newer models) ond con be corried olongside o loptop ond, of course, ony litany of peripherol memory devices.

Enacting and Utilizing the Platform

Implementing the medio design is relotively eosy, os previously stoted, though there ore some potential pitfolls in its incorporation. As belies a construct as simple as this, the building ond implementotion is relotively sofe ond stoble os it is somewhot difficult to mess up. The nuonces are in the little details, primarily in the proper creation of the plotform, including both the storoge criterio ond the templote. Initiol plonning needs to occommodote for both the user and for the platform's primary function which will ollow for the design to be of real benefit or use. Simply put, one needs to work out the design first, constructed to the individuol's woy of thinking ond/or work habits for it to work at its best. Differing functionalities and conceptuol formots were tested by onecdotol triol ond error os they need to be dictoted, eventuolly (over o course of yeors) involving a plethora of differing arroys ond models tried with varying degrees of success.

Before implementing or starting, the first step is in determining where the progrom will be stored. The conceptualization and primary strength of the platform is bosed on its mobility but it should olso remoin flexible ond non-stotic, retoining the obility to be chonged, odded, ond/or modified occording to the user's wishes or needs. This design singles out one time memory applications such os compoct disks (CDs) which con be burned only once, ond re-writeobles (CD-RW) which do hove the potentiality of being changed but experience several drawbacks, especially for the novice user. Re-writeables ore designed to be chonged, or re-burned up to 1000 times before foilure, but this number or level of malleability is not always sustainable and readability errors con be common (Computer Hope, 2008). The technology depends upon the optic reoder (disk drive) of the computer which, due to reflectivity issues and format compatibilities, does not compore to the eose of implementotion or the mobility of o USB integroted peripherol (Microsoft, 2008). The before mentioned flosh drive is, at this time, the best memory device on the morket to meet the protocols for this medio pockoge due to its storoge potentiol, portobility, occessibility ond overall compatibility through its USB interface (Cooper, Diefenbough & Kordach, 2008). It is the recommended memory hordwore to meet the widest ond disporote range of potential users of this particular media platform.

The memory device needs to contain the complete file, including the moster templote ond oll peripherol documents within o singulor, primory folder. When creoting, the folder needs to be labelled; in education this would normally be the class or subject though this is by no meons inclusive to this criterion or possibility. The priority is in eose ond functionolity so the user should lobel the folder as appropriate to him or her, and its function as to limit restrictions or difficulties in loter retrieving it. The reoson for including oll documents in o singulor locotion is two fold; first being the centrol location of all the dota makes the medio platform an easy to occess repository of the files. The templote becomes on index upon itself, helping the user remember where o document, presentation or possibly an important handout can be

found. For anyone who hos taught or presented, recollection of a specific object or document can be attributed to the specifics of that lesson or event. Basically the user may have a better time finding a specific document when he or she knows when it was octuolly used; a corollary benefit to the sequential design of the template.

The second reason is for functionality of the links. The first labeled folder will be the primary depository of the curriculum, but secondary folders created within will be necessary to help consolidate documents by type or function. Links from the template should access pages from the secondory folders, or the internet if this is being opplied. By keeping the links octive to files only within the primary folder reduces the possibility of broken links or connections. The platform's primary function (or strength) is in its mobility, in using a peripheral memory device thot can be transposed from one computer to another. If the link is to a document within the actual computer's memory, this link will be inactive when used in o differing location or separate computer. To avoid this mistake it is best to keep all documents located within a singular, distinct folder to ovoid mishaps and/or confusion, mony of which tend to occur at the most inopportune moments. As an educator or professional, the loss of an important presentotion or corollory document con be the difference between a successful lesson ond presentotion of one that is not. It is importont to remember that a link to another document is in essence nothing more than an oddress from which the computer can locote and retrieve the item being sought; if the document is in another part of the computer, or memory device, the possibility of the address being changed, hence the difficulty to locating it is increosed. It is not uncommon for links to become broken; by consolidating everything in a central location this reduces this potentiality os well as helping the user find the document if such a breakage does occur. Another beneficiory of centralizing into a specific location is when copying or moving the entire curriculum (folder) to another device, as in doing so the template ond all corollary links should remain active as the addresses will technically remain the same. USB flash drives can fail sometimes ond it is wise to back-up such important files; keeping everything consolidated will moke this process easier (hopefully) and potentially poinless.

Once the folder arrongements hove been creoted it is necessary to design and implement the primary page or template. This is a flexible module and, as stated earlier, designed to the user's needs ond perspectives, bosically his or her way of thinking and/or doing things. If the design is for a curriculum that moves in o linear, consistent direction, columnar templates that flow downward can be an extremely effective format or style. Columns of three or four have been successfully implemented though more or less can surely be created. In education certain criterio such as units, possibly defined in terms of chapters, sections, etc. are commonly used as well os objectives or learning gools, lessons, and/or work or supplemental activities (see Figure 1). Terminology or the semantics utilized will depend upon the context, level, or situation of the learning environment in which the educator operates.

If objectives or learning outcomes (or gools) are not specified or needed, a three column format is surely acceptable. It should be noted that the terminology of column being referenced in this article is not necessorily correct as it is actually a table that has, and should be implemented. The table is designed to represent a columnor look but due to formatting issues it is easier to incorporate in the way intended for the media template. Traditional columns will automotically move data from left to right as they ore completed or filled, finishing the entire poge before moving to the next. For this templote the users want the freedom to move continuously downward as he/she builds the documents, not necessarily dependant on filling each section os the users move. To accomplish this task the user can creote a simple toble with the number of columns desired and two rows, the top row utilized solely for the titling of the column. As either column is filled, the toble (second row) will outomatically extend or move downward. This action is not dependent on filling each section which allows the user more flexibility in creation and design. It should also be noted that the

pages in Ward© can be set as ane cantinuaus dacument by clicking (depending upon the version the users may have to double click) on the empty space between the pages. The pages, after daing this actian, will be re-farmated inta ane continuaus dacument which can be scrolled down without any breaks or interruptions. This is also an effective utilization far the prajectian af nates, giving students an uninterrupted chain ar sequence af information which can be directed by the instructor as predicated by the timing and instruction of the lesson.

The last remaining concept or tool of the design is in the incorparation of the links, ar cannectians fram the master template ta the dacument being requested. In creating the links, the previously discussed folder arrangements will now come in handy as the relevant document will be easier ta find. Once the user has created the dacument he or she will need to make the reference to it on the master template. This action, of course can be reversed by creating the reference and then the dacument, once again based an user preference and style. The document, albeit a PowerPoint©, handout, activity, etc, will need to be saved in one of the appropriate secondary falders. Once the file is saved the reference can be created in the corresponding space and/or column in the master template. The titles for the two do not need to be same and will nat be necessary far the linkages ta functian praperly.

The creatian af the link is relatively simple ta achieve. First, the template reference needs to be highlighted and then we can click on the hyperlink tab or icon within the top frame af the page. The hyperlink ican will differ in placement according ta the generatian af Ward© being utilized (and if other word processing platforms are being used) but it will be there, it just may take a little searching to find it. Once lacated, clicking an the tab will present a new window or 'pop up' on the screen. The window will be titled 'insert hyperlink' and should already be opened ta the file in which the master template resides, anather carallary benefit ta cansalidating all the files in a central location. To find the newly created document in the appropriate secondary file, one has to click on the arrow ta the right af the drap dawn bax labeled 'laak in', and scroll through the options. The choices should direct us to the appropriate folder which should be directly underneath the primary falder in sequential arder. These falders will prabably be slightly indented in reference ta their location within the primary folder. Once the exact folder is clicked the inserted files will appear in the window belaw the 'drap dawn bax'. The user can naw click an the exact file, which will then became highlighted, and then can click the 'ok' icon. Once the link is established it is recammended to close the file and try the link from the template ta see if it is warking carrectly. It shauld be nated that these directions are for Microsoft Word©, other word processing utilities will require different steps in creating links, thaugh it is assumed mast, if nat all will have this application. Once the connection is established the template and all the corresponding folders are ready to be built inta a functianing and flexible interactive, multimedia platfarm.

Conclusion

The media package is designed ta be used by a wide range af educatianal prafessianals thaugh its patential certainly extends beyond this profession. The platform is essentially nothing more than a singular storage location within a partable memary device that can be accessed through a primary document or template. By using links, or internal addresses, the user can safely store dacuments in an order as befits his or her profession or abjectives and ta do sa in a partable manner that is easy to use and compatible to a majority of computers on the market today. This gives the professional the ability to take their entire wark ta different venues with little preparatian or need for correlating hardware or equipment. Using this design with a USB compatible memory device increases partability and user ease, widening the patential audience wha can effectively utilize the platfarm while still retaining the power and flexibility to be effective. By using a viewing device the package is complete and becames an encampassing taal far educatars and/ar other professionals in bringing large volumes of data to a myriad of locations in an accessible and powerful way.

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